## ATTACHMENT B

WESTERN DISTRICT OF NEW Y		
UNITED STATES OF AMERICA,		
	Plaintiff,	
v.		10-cr-219-WMS-HKS
TONAWANDA COKE CORPORA	TION, et al.,	
	Defendants.	

## AFFIDAVIT OF THOMAS FERRARA

STATE OF NEW YORK	)
	: ss
COUNTY OF ERIE	)

Thomas Ferrara, duly sworn, deposes and says:

- My name is Thomas Ferrara, and I am an Associate Environmental
   Scientist employed by Conestoga Rovers & Associates, Inc. (CRA) located at 2055 Niagara Falls
   Blvd., Niagara Falls, New York.
- 2. I have been a consulting air quality scientist in western New York for 26 years.
- 3. CRA has been retained to assist Tonawanda Coke Corporation ("Tonawanda Coke") in matters of air quality permitting and emission testing.
- 4. In connection with this litigation, I have been working on air quality related issues for Tonawanda Coke since January, 2010.

- 5. On September 12, 2103 CRA provided a letter to Gregory F. Linsin, counsel for Tonawanda Coke describing the results of an evaluation CRA performed on the short term air quality impacts of two events that occurred at the Tonawanda Coke facility in November 2008 and March 2010.
- 6. I submit this affidavit in response to the affidavit submitted by Mr. James G. Strickland of the New York State Department of Environmental Conservation (NYSDEC). In his affidavit, Mr. Strickland commented on the letter referenced in the preceding paragraph that CRA submitted to Gregory F. Linsin on September 12, 2013.
- 7. The purpose of CRA's evaluation was to determine if the NYSDEC air monitoring data indicated that the shutdown the light oil recovery system in the Byproducts Department of Tonawanda Coke in November 2008 or the capping of the a pressure relief valve on the coke oven gas line in March 2010 affected the measured benzene concentrations at the downwind monitoring stations maintained by NYSDEC.
- 8. In Mr. Strickland's comments he states that CRA's evaluation is based on "simplistic assumptions" and fails to include "other parameters necessary in evaluating monitoring data." Mr. Strickland specifically points out that CRA failed to include "the emission rate of the pollutant," "dispersion rate of the plume," "the rate at which the plume expands," "wind direction," and "distance from the emission source."
- 9. In its evaluation, CRA intentionally selected short time periods from the NYSDEC data from immediately before to immediately following the events of interest. The purpose for selecting these short time periods was to minimize the potential impacts of other parameters and to isolate the impacts of the target events. The emission rate of benzene was

likely constant over the short time periods selected as it is related to production rate and that would not have changed significantly over the short time periods evaluated.

- 10. In CRA's evaluation, the dispersion rate of the plume and the rate at which the plume expands, which are actually the same parameter stated twice, have been considered. These parameters are a function of atmospheric stability which describes the level of turbulence in the atmosphere. The data periods selected for the CRA evaluation have similar levels of stability both before and after the events essentially cancelling their potential effect.
- 11. With respect to wind direction the CRA letter of September 12, 2013 clearly states that the data selected for the evaluation were for those periods of time when the wind direction was from the plant to the Grand Island Boulevard (GIB) monitoring station.
- 12. In terms of the distance between the source and the monitor, CRA is not aware of any changes in the distance between the plant and GIB over the periods of time covered by the data analyzed.
- defense counsel following a Freedom of Information Law (FOIL) request. This request resulted in NYSDEC providing defense counsel with approximately 18 Gigabytes (18,000,000,000 bytes) or approximately one million pages of data. CRA used an excel file named "NYSDECFOIL005927.xls" provided by the NYSDEC for this assessment. The assessment calculated the average wind speeds during the specified periods only when the wind direction resulted in the GIBI monitoring station being downwind of the Tonawanda Coke Corporation Facility, +/- 11°, as mentioned in the preceding paragraph. To do this, the data was sorted by wind direction and any hours coinciding within the time periods were taken for data purposes.

Mr. Strickland also states that, over the long term from July 2007 to June 2008, there was no discernible difference in downwind benzene concentrations based on an evaluation of the wind speed. While this may be accurate given the complex nature of the source, it is irrelevant in the evaluation of the specific events in question.

Mr. Strickland also states that Tonawanda Coke had not previously conducted a proper leak detection and repair program ("LDAR"). He then states that there was an 86% reduction in the ambient air benzene concentrations over a period of time that is not defined. He implies that this reduction was the result of operational modifications made pursuant to administrative orders issued by NYSDEC and USEPA in July 2011. Mr. Strickland fails to acknowledge that there was a substantial reduction in coke production at Tonawanda Coke from 2009 to 2012, which would have resulted in a corresponding reduction in coke oven gas production. Mr. Strickland also fails to mention that the requirements for the LDAR program mandated in the National Emission Standard for Benzene Emissions from Coke By-Product Recovery found at 40 CFR 61 Subpart L, specifically requires LDAR testing of a wide range components of a byproduct plant, but the coke oven gas piping system is not included in the regulation.

Thomas Ferrara

Sworn to before me this 7th day of October, 2013.

JOY A: PFITZINGER
Registration #01PF6045348
Notary Public, State of New York
Qualified in Eric County